AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A measurement system for measuring an object based on images obtained by plural cameras, the system comprising:

a positional control portion for controlling positions of the cameras to change photographing directions of the cameras;

a two-dimensional measurement portion for conducting two-dimensional measurement of the object based on the image of the object, the image being obtained by at least one of the cameras;

a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the stereoscopic measurement including distance information for a plurality of points on the object, the images being obtained by at least two of the cameras, said at least two cameras including at least the camera for providing an image for the two-dimensional measurement portion, the stereoscopic measurement portion being configured to perform the stereoscopic measurement when a first one and a second one of the cameras are controlled to photograph an overlapping range which includes the object; and

a switching portion for switching between the two-dimensional measurement portion and the stereoscopic measurement portion to perform an operation[[.]];

wherein in response to the measurement of the object by the two-dimensional measurement portion based on the image obtained by at least the first one of the cameras,

the positional control portion is adapted to respond by controlling the positions of at least the first one and the second one of the cameras, based on a detected position of the object by the first one of the cameras, so that the first one and the second one of the cameras photograph the overlapping range which includes the object, and

the stereoscopic measurement portion conducts stereoscopic measurement of distances of the plurality of points on the object.

2. (Original) The measurement system according to claim 1, wherein the two-dimensional measurement portion conducts two-dimensional measurement based on the image obtained by only one of the cameras.

3. (Original) The measurement system according to claim 1, wherein the cameras allow for photographing directions differing from each other, and the cameras are controlled so as to photograph ranges differing from each other and to face directions differing from each other when the two-dimensional measurement is conducted.

4. (Previously Presented) The measurement system according to claim 1, wherein the cameras allow for photographing directions differing from each other, and the positions of the cameras are so controlled that the cameras photograph the overlapping range when the stereoscopic measurement is conducted.

5. (Previously Presented) The measurement system according to claim 1, wherein

the positional control portion controls the positions of the cameras so that the cameras photograph ranges differing from each other and face directions differing from each other when the two-dimensional measurement portion conducts two-dimensional measurement, and controls the positions of the cameras so that the cameras photograph the overlapping range when the stereoscopic measurement portion conducts stereoscopic measurement, the overlapping range including the object, and

the switching portion switches to operate the two-dimensional measurement portion in an initial condition, and switches to operate the stereoscopic measurement portion when the two-dimensional measurement portion detects a moving object.

6. (Original) The measurement system according to claim 1, wherein the positional control portion controls the entire position and posture of the cameras.

7. (Original) The measurement system according to claim 1, wherein the positional control portion allows for control of the position and posture of each of the cameras and the cameras are controlled so as to move symmetrically.

8. (Original) The measurement system according to claim 1, wherein the positional control portion allows for control of the position and posture of each of the cameras and the cameras are controlled so as to move synchronously.

9. (Original) The measurement system according to claim 1, further comprising an alarm output portion for raising an alarm based on an alarm signal output from the switching portion.

10. (Original) The measurement system according to claim 9, wherein the alarm output portion raises the alarm when the switching portion switches from processing in the two-dimensional measurement portion to processing in the stereoscopic measurement portion.

11. (Original) The measurement system according to claim 1, wherein the stereoscopic measurement portion includes a portion for reducing resolution of the images, and switches between generation of three-dimensional data with high resolution and generation of three-dimensional data with low resolution appropriately to conduct stereoscopic measurement.

12. (Original) The measurement system according to claim 1, wherein each of the cameras includes an image pickup device in which a color filter having any one of three primary colors is arranged for each pixel, and when image data obtained by the cameras are processed, image data of pixels corresponding to only a color filter with a particular color in the image pickup device of each of the cameras are used.

13. (Previously Presented) The measurement system according to claim 1, wherein the positional control portion controls the positions of the cameras independently of

each other when the two-dimensional measurement is conducted, and controls the positions of the cameras concurrently when the stereoscopic measurement is conducted.

14. (Previously Presented) The measurement system according to claim 1, wherein the switching portion is configured to switch between a first mode of measurement of the object based on the images of the object from the cameras using the two-dimensional measurement portion and a second mode of measurement of the object using the stereoscopic measurement portion, said switching being based on a current mode of measurement and on an output from one of the two-dimensional measurement portion and the stereoscopic measurement portion.

15. (Previously Presented) The measurement system according to claim 5, wherein the switching portion is configured to switch from measurement using the stereoscopic measurement portion to the two-dimensional measurement portion when the stereoscopic measurement portion does not detect an object.

16. (Previously Presented) The measurement system according to claim 14, wherein the switching portion is configured to switch between measurement of the object using the two-dimensional measurement portion and using the stereoscopic measurement portion based on whether an object is detected.

17. (Currently Amended) A measurement system for measuring an object based on images obtained by two cameras, the system comprising:

a camera position control system for outputting camera position control signals to change photographing directions of the cameras, said camera position control system being configured to enable control of directions of the two cameras independently from each other;

a two-dimensional measurement device for conducting two-dimensional measurement of the object based on the images of the object, the images being obtained by at least one of the cameras;

a stereoscopic measurement device for conducting stereoscopic measurement of the object based on the images of the object, the stereoscopic measurement including distance

information for a plurality of points on the object, the images being obtained by both of the cameras, the stereoscopic measurement device being configured to perform the stereoscopic measurement when both of the cameras are controlled to photograph an overlapping range which includes the object; ~~the stereoscopic measurement including distance information for a plurality of points on the object;~~ and

a switching device for switching between the two-dimensional measurement ~~portion~~ device and the stereoscopic measurement ~~portion~~ device to perform an operation[[.]];

wherein in response to the measurement of the object by the two-dimensional measurement device based on the image obtained by at least the first one of the cameras,

the camera position control system is adapted to respond by controlling the positions of both of the cameras, based on a detected position of the object by the first one of the cameras, so that the first one and the second one of the cameras photograph the overlapping range which includes the object, and

the stereoscopic measurement device conducts stereoscopic measurement of distances of the plurality of points on the object.

18. (Previously Presented) The measurement system according to claim 17, wherein

the camera position control system is configured to control the positions of the cameras so that the cameras photograph ranges differing from each other and face directions differing from each other when the two-dimensional measurement portion conducts two-dimensional measurement, and to control the positions of the cameras so that the cameras photograph the overlapping range when the stereoscopic measurement portion conducts stereoscopic measurement, the overlapping range including the object, and

the switching portion switches to operate the two-dimensional measurement portion in an initial condition, and switches to operate the stereoscopic measurement portion when the two-dimensional measurement portion detects an object.

19. (Previously Presented) The measurement system according to claim 18, wherein the switching portion switches to operate the stereoscopic measurement portion when the two-dimensional measurement portion detects a moving object.

20. (Previously Presented) The measurement system according to claim 17, the camera position control system is configured to control the positions of the cameras independently from each other when the two-dimensional measurement portion conducts two-dimensional measurement, and to control the positions of the cameras concurrently when the stereoscopic measurement portion conducts stereoscopic measurement.

21. (Currently Amended) A measurement system for measuring an object based on images obtained by plural cameras, the system comprising:

a positional control portion for controlling positions of the cameras to change photographing directions of the cameras;

a two-dimensional measurement portion for conducting two-dimensional measurement of the object based on the image of the object, the image being obtained by at least one of the cameras;

a stereoscopic measurement portion for conducting stereoscopic measurement of the object based on the images of the object, the stereoscopic measurement including distance information for a plurality of points on the object, the images being obtained by at least two of the cameras, said at least two cameras including at least the camera for providing an image for the two-dimensional measurement portion, the stereoscopic measurement portion being configured to perform the stereoscopic measurement when a first one and a second one of the cameras are controlled to photograph an overlapping range which includes the object; ~~the stereoscopic measurement including distance information for a plurality of points on the object;~~ and

a switching portion for switching between the two-dimensional measurement portion and the stereoscopic measurement portion to perform an operation, said switching portion being configured to control the provision of images from the cameras to the measurement portions such that said at least two of the cameras from which images are obtained for

conducting stereoscopic measurement include said at least one of the cameras from which the image of the object is obtained for the two-dimensional measurement portion[[.]];

wherein in response to the measurement of the object by the two-dimensional measurement portion based on the image obtained by at least the first one of the cameras,

the positional control portion is adapted to respond by controlling the positions of at least the first one and the second one of the cameras, based on a detected position of the object by the first one of the cameras, so that the first one and the second one of the cameras photograph the overlapping range which includes the object, and

the stereoscopic measurement portion conducts stereoscopic measurement of distances of the plurality of points on the object.

22. (Previously Presented) The measurement system according to claim 21, wherein the switching portion is configured to switch from said two-dimensional measurement portion to said stereoscopic measurement portion based, at least in part, on a measurement of the object conducted by said two-dimensional measurement portion.

23. (Previously Presented) The measurement system according to claim 21, wherein the switching portion is configured to switch from said two-dimensional measurement portion to said stereoscopic measurement portion when said two-dimensional measurement portion detects an object.

24. (Previously Presented) The measurement system according to claim 23, wherein the switching portion is configured to switch from said stereoscopic measurement portion to said two-dimensional measurement portion when said stereoscopic measurement portion does not detect an object.

25. (Previously Presented) The measurement system according to claim 24, wherein the positional control portion is configured to control the positions of the cameras so that the cameras photograph ranges differing from each other when the two-dimensional measurement portion conducts two-dimensional measurement, and to control the positions of

the cameras so that the cameras photograph the overlapping range when the stereoscopic measurement portion conducts stereoscopic measurement, the overlapping range including the object.

26. (Currently Amended) A surveillance control and object detection apparatus for controlling at least two cameras and for detecting objects based on image data obtained from the cameras, the apparatus comprising:

a camera positional control device which is configured to generate signals to control the positions of the cameras to change photographing directions of the cameras;

a two-dimensional image processing system which is configured to perform two-dimensional evaluation of image data obtained by at least a first one of the cameras to detect an object;

a stereoscopic image processing system which is configured to perform stereoscopic evaluation of image data obtained from both the first one of the cameras and a second one of the cameras to detect the object, the stereoscopic evaluation including determining distance information for a plurality of points on the object, said first one and second one of the cameras including at least the camera for providing an image for the two-dimensional image processing system, the stereoscopic image processing system being configured to perform the stereoscopic evaluation when the first one and the second one of the cameras are controlled to photograph an overlapping range which includes the object; and

a controller which is configured to control the operation of the cameras and the camera positional control device, said controller also being configured to control a mode of operation of the apparatus such that in a first mode image data obtained by at least a first one of the cameras is evaluated by said two-dimensional image processing system and in a second mode image data obtained from both the first one of the cameras and a second one of the cameras are evaluated by said stereoscopic image processing system, said controller further being configured to switch between said first and second modes of operation based on a current mode of said apparatus and an output from one of the two-dimensional image processing system and the stereoscopic image processing system [[.]];

wherein in response to the measurement of the object by the two-dimensional image processing system based on the image obtained by at least the first one of the cameras,

the camera positional control device is adapted to respond by controlling the positions of at least the first one and the second one of the cameras, based on a detected position of the object by the first one of the cameras, so that the first one and the second one of the cameras photograph the overlapping range which includes the object, and

the stereoscopic image processing system conducts stereoscopic measurement of distances of the plurality of points on the object.

27. (Previously Presented) A surveillance control and object detection apparatus according to claim 26, wherein said two-dimensional image processing system is configured in said first mode to perform two-dimensional evaluation of image data obtained from the first one of said cameras to detect an object.

28. (Previously Presented) A surveillance control and object detection apparatus according to claim 27, wherein the controller is configured to switch from said first mode to said second mode based on an output from the two-dimensional image processing system which indicates the presence of an object detected in the image data obtained by the first one of the cameras.

29. (Previously Presented) A surveillance control and object detection apparatus according to claim 28, wherein the controller is configured to switch from said second mode to said first mode based on an output from the stereoscopic image processing system which indicates an absence of an object detected in the image data obtained from both the first one of the cameras and the second one of the cameras.

30. (Previously Presented) The measurement system according to claim 29, wherein said camera positional control device is configured to control the positions of the cameras so that the cameras photograph ranges differing from each other when the two-dimensional image processing system conducts two-dimensional measurement, and to control

the positions of the cameras so that the cameras photograph the overlapping range when the stereoscopic image processing system conducts stereoscopic measurement, the overlapping range including the object.

31. (Previously Presented) A measurement system for measuring an object based on images obtained by plural cameras as in Claim 1 wherein the stereoscopic measurement comprises a distance image including the distance information.

32. (Cancelled)

33. (Previously Presented) A measurement system for measuring an object based on images obtained by plural cameras as in Claim 17 wherein the stereoscopic measurement comprises a distance image including the distance information.

34. (Cancelled)

35. (Previously Presented) A measurement system for measuring an object based on images obtained by plural cameras as in Claim 21 wherein the stereoscopic measurement comprises a distance image including the distance information.

36. (Previously Presented) A measurement system for measuring an object based on images obtained by plural cameras as in Claim 21 wherein said positional control portion is configured to respond to the detection of an object by said two-dimensional measurement portion based on an image obtained by said at least one of the cameras, said positional control portion being configured to respond by controlling the positions of the at least two of the cameras, based on a detected position of the object by said at least one of the cameras, so that the at least two of the cameras photograph an overlapping range which includes the detected object.

37. (Previously Presented) A measurement system for measuring an object based on images obtained by plural cameras as in Claim 26 wherein the stereoscopic evaluation comprises a distance image including the distance information.

38. (Previously Presented) A measurement system for measuring an object based on images obtained by plural cameras as in Claim 26 wherein said controller is configured to respond to the detection of an object by said two-dimensional image processing system based on an image obtained by the first one of the cameras, said controller being configured to respond by controlling the positions of the at least a first and a second one of said cameras, based on a detected position of the object by said first one of the cameras, so that the cameras photograph an overlapping range which includes the detected object.

39. (New) A measurement system for measuring an object based on images obtained by plural cameras as in claim 1, wherein the stereoscopic measurement portion outputs, as three-dimensional measurement data, a position and size of the object based on the distance information for a plurality of points on the object, wherein the distance information includes distance away from the object and three-dimensional shape information on the object.